

### **DETAILED ACTION**

1. Claims 39-40, 44-47, 49-57, 59-62, 64-65, 67 and 71-74 Pending.  
Claims 1-38, 41-43, 48, 58, 63, 66, and 68-70 Canceled.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/10/2009 has been entered.

### ***Response to Arguments***

3. Applicant's arguments filed 12/01/2008 have been fully considered but they are not persuasive.

As per Applicants arguments asserting that Elsey fails to disclose the limitation that the system is "configured to deny access to at least one other virtual database when the user has the access authorization to the first virtual database", Examiner agrees, but respectfully notes that the newly cited reference of Sandhu et al. ("The NIST model for role-based access control: towards a unified standard", Proceedings of the fifth ACM workshop

on Role-based access control, pgs. 47-63, 2000, ACM and referred to hereinafter as Sandhu) clearly discloses this limitation.

As per Applicants arguments regarding the limitation requiring the user to be in communication with a customer of a first tenant, Examiner respectfully disagrees. Examiner asserts, as asserted in the previous office action in regard to Claims 71-74 that the newly introduces limitations are disclosed in the art of Thomas. The disclosure of Thomas on Page 18, Column 1, clearly indicates that roles in a role based access control system are changed in response to events (e.g. the transfer of a patient), that these role transfer operations may be done on a group or user based granularity, and that the role transfer operations may be automated to occur automatically in response to changes in the host information system. Examiner asserts that this disclosure is sufficient, when taken in combination with the disclosure of Elsey, to allow the system of Elsey to grant the access and temporary role to a user for the duration of a live communication/telephone call between the user and a customer.

As per the above arguments the rejection will be updated to reflect amendments made to the claims and maintained.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 39-40, 44-47, 49-57, 59-62, 64-65, 67 and 71-74 rejected under 35

U.S.C. 103(a) as being unpatentable over Elsey et al. (U.S. 6,870,921 B1) in view of

Thomas ("Team-based access control (TMAC): a primitive for applying role-based access controls in collaborative environments", Proceedings of the second ACM workshop on Role-based access control; Pgs. 13-19; 1997; ACM) and in view of Sandhu ("The NIST model for role-based access control: towards a unified standard", Proceedings of the fifth ACM workshop on Role-based access control, Pgs. 47-63, 2000, ACM).

As per Claim 39, Elsey discloses a database system comprising: a partitionable database, wherein the partitionable database is partitioned into a plurality of virtual databases (column 2, lines 16-17), each virtual database of the plurality of virtual databases comprises a plurality of files (column 4, lines 2-3, wherein "virtual database" could mean "private directory", Examiner notes that directories hold files of distinct information.), each virtual database of the plurality of virtual databases corresponds to a tenant of the partitionable database, and for each tenant of the partitionable database, a partitioned virtual database for the tenant comprises stored files associated with the tenant (column 4, lines 9-16); and an access control subsystem (column 4, lines 16-22), wherein the access control subsystem is coupled to the virtual databases (column 4, lines 16- 22), the access control subsystem is configured to provide access to a user, the access provided to the user is to files in a first virtual database, the first virtual database is among the plurality of virtual

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databases, the access control subsystem is configured to provide the access to the user only when the user has access authorization to the first virtual database from a first tenant corresponding to the first virtual database (column 4, lines 16-22).

Elsey fails to disclose the access authorization is based at least in part on the whether the user is in communication with a customer of the first tenant, the access control subsystem is configured to deny access to at least one other virtual database when the user has the access authorization to the first virtual database, and the at least one other virtual database comprises one or more of the virtual databases other than the first virtual database.

Thomas discloses the access authorization is based at least in part on the whether the user is in communication with a customer of the first tenant (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include the access authorization is based at least in part on the whether the user is in communication with a customer of the first tenant with the motivation to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

Sandhu discloses the access control subsystem is configured to deny access to at least one other virtual database when the user has the access authorization to the first virtual database, and the at least one other virtual database comprises one or more of the virtual databases other than the first virtual database (Section 5.1 clearly discloses

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static separation of duties which is used to prevents a user from being authorized for one role (e.g. a role allowing for access to at least one other virtual database) based on the user being authorized for a current role (e.g. a role allowing access to the first virtual database).).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Sandhu to include the access control subsystem is configured to deny access to at least one other virtual database when the user has the access authorization to the first virtual database, and the at least one other virtual database comprises one or more of the virtual databases other than the first virtual database with the motivation of preventing conflicts of interest in a role based system (Sandhu, Section 5.1)

As per Claim 40, Elsey discloses the virtual databases are disjoint from one another (column 4, lines 9-16, wherein the information stored may contain different elements).

As per Claim 44, Elsey discloses the access control subsystem is configured to provide access authorization to the user for a particular file in the first virtual database based on initiation of a database call through an associated computer telephony integration (CTI) system by the customer of the first tenant (column 5, lines 20-22).

As per Claim 45, Elsey discloses an operator of the partitionable database provides a common call center service to customers of tenants of the partitionable database on behalf of the tenants (column 10, lines 20-26).

As per Claim 46, Elsey discloses a method comprising: granting an access authorization to a user of a partitionable database (column 4, lines 2-4, 16-22), wherein the partitionable database comprises a plurality of virtual databases (column 4-lines 2-3), each virtual database of the plurality of virtual databases comprises a plurality of files (column 4, lines 2-3, wherein "virtual database" could mean "private directory", Examiner notes that directories hold files of distinct information.), each virtual database of the plurality of virtual databases has a unique database owner (column 5, lines 21-22), the access authorization relates to a first virtual database of the plurality of virtual databases (column 4, lines 16- 22), providing to the user access to a file of the files in the first virtual database while the user has the access authorization (column 4, lines 16- 22).

Elsey fails to disclose the access authorization is based at least in part on whether the user is in communication with a customer of the database owner of the first virtual database; and denying to the user access to a plurality of excluded files while the user has the access authorization, wherein the excluded files comprise files in the virtual databases other than the first virtual database.

Thomas discloses the access authorization is based at least in part on whether the user is in communication with a customer of the database owner of the first virtual database (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include the access authorization is based at least in part on whether the user is in communication

with a customer of the database owner of the first virtual database with the motivation to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

Sandhu discloses denying to the user access to a plurality of excluded files while the user has the access authorization, wherein the excluded files comprise files in the virtual databases other than the first virtual database (Section 5.1 clearly discloses static separation of duties which is used to prevents a user from being authorized for one role (e.g. a role allowing for access to at least one other virtual database) based on the user being authorized for a current role (e.g. a role allowing access to the first virtual database).).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Sandhu to include denying to the user access to a plurality of excluded files while the user has the access authorization, wherein the excluded files comprise files in the virtual databases other than the first virtual database with the motivation of preventing conflicts of interest in a role based system (Sandhu, Section 5.1)

As per Claim 47, Elsey discloses the virtual databases are disjoint virtual databases (column 4, lines 9-16, wherein the information stored may contain different elements).

As per Claim 49, Elsey discloses the user needs an authorization from an owner of a file within the first virtual database to access that file, the method comprising: providing access to the file to the user after the owner of the file grants the authorization to access that file (column 4, lines 11-16; column 4, lines 19-24; column 4, lines 30-33).

As per Claim 50, Elsey discloses before the providing of the access to the file, receiving access authorization to the file for the user from the owner of the file (column 4, lines 16-22; column 4, lines 30-33).

As per Claim 51, Elsey discloses the receiving of the access authorization to the file comprises initiation, by the customer, of a database call to the user through an associated computer telephony integration (CTI) system (column 4, lines 38-59).

As per Claim 52, Elsey discloses the partitionable database comprises a multi-tenant database having a plurality of tenants, each tenant of the tenants being an owner of a separate virtual database, at least two of the tenants utilizing a common call center service (column 4, lines 2-3; column 4, lines 9-12; column 4, lines 26-28; column 4, lines 38-51).

As per Claim 53, Elsey discloses the partitionable database stores a plurality of files that are each associated with one of a plurality of unique database owners such that the virtual databases each comprise stored files associated with the corresponding owner of the virtual database (column 4, lines 2-3; column 4, lines 9-16).

As per Claim 54, Elsey discloses the partitionable database is operated by a database operator on behalf of the owners of the virtual databases as tenants of the

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partitionable database (column 2, lines 20-25; column 4, lines 46-47, wherein the subscriber needs a service that is operated by an operator).

As per Claim 55, Elsey discloses each of the tenants lease capacity of the partitionable database from the database operator (column 4, lines 36- 38, wherein the subscriber or tenant needs a service that is operated by an operator).

As per Claim 56, Elsey discloses the granting the access authorization to the user for database is initiated by a telephone call from the customer through a computer telephony integration (CTI) system (column 4, lines 38-44).

As per Claim 57, Elsey discloses the user is a representative of an organization providing a service to the owner of the first virtual database (column 4, lines 30-33).

As per Claim 59, Elsey discloses the access provided to the user is temporary access limited to a duration of the telephone call (column 5, line 32; column 5, line 56; wherein the "duration" is the time between log in and log out).

As per Claim 60, Elsey discloses the telephone call is made regarding the file, the method comprising: automatically providing access to the user to other files in the first virtual database based on the telephone call (column 10, lines 20-25; column 10, lines 35-37).

As per Claim 61, Elsey discloses the computer telephony integration (CTI) system is part of a call center service common to the owners of the virtual databases (column 4, lines 38-44; column 10, lines 20-26).

As per Claim 62, Elsey discloses the providing the access is based at least in part on the user receiving the telephone call via the CTI system (column 4, lines 38-44).

As per Claim 64, Elsey discloses a method comprising: setting access privileges for a multi-tenant database (column 4, lines 2-4, 16-22), wherein the multi-tenant database comprises a partitionable database (column 4, lines 2-3), the partitionable database comprises a plurality of virtual databases (column 4, lines 2-4, wherein "virtual database" could mean "private directory"; column 4, lines 9- 16), each of the virtual databases has an owner tenant among tenants of the multi- tenant database (column 5, lines 21-22), each of the virtual databases comprises multiple associated groups of data groups (column 4, lines 9- 11), the setting the access privileges for the multi-tenant database comprises setting access privileges for the data groups in each of the virtual databases (column 4, lines 16- 18; column 4, lines 28-35), and for each of multiple requests by a user to data groups in the virtual databases (column 4, lines 31-32), determining whether to grant access to the user for a requested data group based at least in part on a relationship of the user to an owner tenant of the virtual database that comprises the requested data group column 2, lines 45-47; column 4, lines 19-20; column 4, lines 28-35); when the relationship of the user to the

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owner tenant is determined to be an employee relationship, granting access to the user for the requested data group (column 4, lines 28-35).

Elsey fails to disclose when the relationship of the user to the owner tenant is not determined to be an employee relationship, granting temporary access to the user for the requested data group only during a time when the user is in communication with a customer of the owner tenant, and when the relationship of the user to the owner tenant is not determined to be an employee relationship, denying access to the user for at least one other data group during the time when the user is in communication with the customer of the owner tenant, and the at least one other data group comprises one or more of the data groups other than the requested data group.

Thomas discloses when the relationship of the user to the owner tenant is not determined to be an employee relationship, granting temporary access to the user for the requested data group only during a time when the user is in communication with a customer of the owner tenant (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include when the relationship of the user to the owner tenant is not determined to be an employee relationship, granting temporary access to the user for the requested data group only during a time when the user is in communication with a customer of the owner tenant with the motivation to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

Sandhu discloses when the relationship of the user to the owner tenant is not determined to be an employee relationship, denying access to the user for at least one other data group during the time when the user is in communication with the customer of the owner tenant, and the at least one other data group comprises one or more of the data groups other than the requested data group (Section 5.1 clearly discloses static separation of duties which is used to prevent a user from being authorized for one role (e.g. a role allowing for access to at least one other data group) based on the user being authorized for a current role (e.g. a role allowing access to the first data group)).

It would have been obvious to one skilled in the art at the time of Applicants' invention to modify the teachings of Elsey with the teachings of Sandhu to include when the relationship of the user to the owner tenant is not determined to be an employee relationship, denying access to the user for at least one other data group during the time when the user is in communication with the customer of the owner tenant, and the at least one other data group comprises one or more of the data groups other than the requested data group with the motivation of preventing conflicts of interest in a role based system (Sandhu, Section 5.1)

As per Claim 65, Elsey discloses each of the data groups is a file stored in the multi-tenant database (column 4, lines 2-3).

As per Claim 67, Elsey discloses at least a first subset of the requests for data groups by users are received for users that are user representatives of a database operator; each request in the first subset of the requests is based on a contact to a user

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representative, the users that the contact is initiated by a tenant that owns a virtual database associated with the requested data group, and the access authorization for the user representative is determined to have been provided by the owner tenant based on the contact initiated by the tenant (column 4, lines 16-22; column 4, lines 28-33).

As per Claim 71, Elsey fails to disclose the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer of the owner tenant.

Thomas discloses the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer of the owner tenant (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer of the owner tenant with the motivation to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

As per Claim 72, Elsey fails to disclose the temporary access granted to the user is limited to a duration of a telephone call between the user and the customer of the owner tenant.

Thomas discloses the temporary access granted to the user is limited to a duration of a telephone call between the user and the customer of the owner tenant (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include the temporary access granted to the user is limited to a duration of a telephone call between the user and the customer of the owner tenant with the motivation to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

As per Claim 73, Elsey fails to disclose the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer of the first tenant.

Thomas discloses the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer of the first tenant (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer of the first tenant with the motivation

to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

As per Claim 74, Elsey fails to disclose the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer.

Thomas discloses the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer (Page 18, Column 1, wherein the permissions may be deactivated at the end of a workflow instance.).

It would have been obvious to one skilled in the art at the time of Applicants invention to modify the teachings of Elsey with the teachings of Thomas to include the temporary access granted to the user is limited to a duration of a live verbal communication between the user and the customer with the motivation to distinguish the passive concept of permission assignment from the active concept of context-based permission activation (Thomas, Abstract).

#### ***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Hicks whose telephone number is (571) 272-2670. The examiner can normally be reached on Monday - Friday 9:00a - 5:30p.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Neveen Abel-Jalil can be reached at (571)272-4074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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